

What is claimed is:

- 1 1. A removable disk drive apparatus, comprising:
 2 a tray on which a plurality of concave portions for a
 3 disk for supporting disk storage media having different
 4 diameters are formed in concentric positions, wherein
 5 said tray comprises:
 6 larger disk support lugs provided at plural points on
 7 a periphery of a concave portion for a larger diameter disk;
 8 and
 9 smaller disk support lugs provided at plural points on
 10 a periphery of a concave portion for a smaller diameter disk;
 11 said smaller disk support lugs including:
 12 a storage groove provided at a plurality of points on
 13 the periphery of the concave portion for a larger diameter
 14 disk;
 15 flexible lugs with elastic deformation supported in said
 16 storage groove, and having tip portions projecting into the
 17 periphery of the concave portion for a smaller diameter disk;
 18 and
 19 a stopper to keep the tip portions of the flexible lugs
 20 projecting above a surface of the periphery of the concave
 21 portion for a smaller diameter disk from the storage groove.

- 1 2. The removable disk drive apparatus according to claim
 2 1, wherein

1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278</
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3 said flexible lugs can be configured by bending an elastic
4 metal line material in a U-shaped form, fixing the base portions
5 on both ends to end surfaces of an outer periphery of the storage
6 groove, and allowing the tip portion of a U-shaped unit to
7 project into the periphery of the concave portion for a smaller
8 diameter disk from the storage groove.

3 said flexible lugs are elastic metal plates.

3 said stopper is configured by projections projecting
4 opposite each other on both sides of the storage groove, and
5 when the flexible lugs are subject to elastic deformation,
6 they pass over the stopper to suppress restoration of the
7 elasticity.

[illegible]

3 said stopper is configured by projections projecting
4 opposite each other on both sides of the storage groove, and
5 when the flexible lugs are subject to elastic deformation,
6 they pass over the stopper to suppress restoration of the
7 elasticity.

3 said smaller disk support lugs are provided at least two
4 points below and along the periphery of the concave portion
5 for a smaller diameter disk.

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1 14. The removable disk drive apparatus according to claim
2 7, wherein

3 said smaller disk support lugs are provided at least two
4 points below and along the periphery of the concave portion
5 for a smaller diameter disk.

1 15. A removable disk drive apparatus, comprising:

2 a tray on which a plurality of concave portions for a
3 disk for supporting disk storage media having different
4 diameters are formed in the concentric positions, wherein
5 said tray comprises:

6 larger disk support lugs provided at a plurality of points
7 on a periphery of a concave portion for a larger diameter disk;

8 a storage groove provided at a plurality of points on
9 the periphery of the concave portion for a smaller diameter
10 disk;

11 said storage groove including:

12 a first concave portion provided opposite each other in
13 the radial direction in a position closer to a center of the
14 concave portion for a smaller diameter disk on both sides of
15 said storage groove; and

16 a second concave portion opposite each other in the radial
17 direction in the position apart from the center of the concave
18 portion for a smaller diameter disk; and

19 a rotating lug provided in said storage groove, and having
20 a first convex portion and a second convex portion on both
21 sides respectively corresponding to said first and second
22 concave portions in the storage groove;

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23 said rotating lugs being supported as rotatable by fitting
 24 the second convex portion into the second concave portion in
 25 the storage groove; and

26 said rotating lugs rotating using as an axis the second
 27 convex portion on both sides fit into the second concave portion
 28 when the first convex portion is removed from the first concave
 29 portion on both sides, the rear ends of the rotating lugs touch
 30 the storage groove when the first convex portion on both sides
 31 passes over the edge which is a boundary between the concave
 32 portion for a larger diameter disk and the storage groove,
 33 thereby holding a state in which the tip portion of a smaller
 34 disk diameter projects above the surface of the periphery of
 35 the concave portion for a smaller diameter disk from the storage
 36 groove.

1 16. The removable disk drive apparatus according to claim
 2 15, wherein

3 said front convex portions on both sides and corresponding
 4 front concave portions are hemispherical, and said rear convex
 5 portion on both sides and corresponding rear concave portions
 6 are cylindrical.

1 17. The removable disk drive apparatus according to claim
 2 15, wherein

3 said rotating lugs branch off in three units from one
 4 plate, the branch units on both ends are radially spread on
 5 the concave portion for a larger diameter disk, and a distance

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6 between both outer sides of the branch units is formed a little
larger than a width of the storage groove.

1 18. The removable disk drive apparatus according to claim
2 16, wherein

3 said rotating lugs branch off in three units from one
4 plate, the branch units on both ends are extend up and down,
5 and a distance between the divided units on both ends is formed
6 a little larger than a width of the storage groove.

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